

### Abstract

A driver circuit for a laser diode or other optical source includes an input stage, an output stage, a current generator circuit and an output load detection circuit. The current generator circuit is adapted to establish a modulation current for application to one of a first output and a second output of the output stage in accordance with a differential or single-ended input data signal applied to the input stage. The output load detection circuit has first and second inputs coupled to the respective first and second outputs of the output stage, and is configured to detect an improper load condition at one or more of the first and second outputs of the output stage and to generate a corresponding output indicator. The output indicator is utilized in the driver circuit to control the modulation current so as to prevent saturation of the output stage in the presence of the improper load condition. For example, the output load detection circuit may be configured to determine if a voltage level of at least one of the first and second outputs of the output stage drops below a designated load detection sense threshold, in which case the modulation current can be disabled or otherwise interrupted so as to prevent the saturation of the output stage.